

REMARKS/ARGUMENTS

Claims 44-65 are pending in this application. By this Amendment, the drawings are amended, Claims 1-13, 15-28, 31-37 and 40-43 are cancelled, and Claims 44-65 are added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Except as indicated in the remarks set forth below, the amendments are made for the purposes of clarity and to address informalities pointed out by the Examiner, and are not required to overcome any prior art. No new matter is added.

The new claims have been added to clarify that the invention relates to a mold machine apparatus adapted for removal of particularly defined mold components. Accordingly, the preamble to the new independent Claims 44 and 56 are revised from the original independent claims to clarify that the claims are directed to a stack injection mold apparatus adapted for removal of components.

DRAWINGS

The drawings stand rejected because they do not include reference characters 250 and 13 mentioned in the description, and because they include other reference characters not mentioned in the description. The clerical errors have been corrected to address the informality by amending Figs. 10-10D, 14C, 15 and 16A as pointed out by the Examiner. Withdrawal of the objections to the drawings is respectfully requested.

CLAIM INFORMALITIES

Claims 11-12, 16-28 and 41-43 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Applicant respectfully submits that these rejections have been obviated by the cancellation of the claims. In addition, the new Claims 44-65, have been added to clarify the language of the cancelled claims in view of the Examiner's §112 concerns. Withdrawal of the rejection to the claims under 35 U.S.C. §112, second paragraph, is respectfully requested.

PRIOR ART REJECTIONS

Claims 16-28 and 41-43 stand rejected under 35 U.S.C. §102(b) over Martin (U.S. Patent No. 5,350,289, the '289 patent). Claims 1, 3, 7 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Martin '289 in view of Rosato (Injection Molding Handbook). Claims 4 and 8 stand rejected under 35 U.S.C. §103(a) over Martin '289, Rosato and further in view of Martin (U.S. Patent No. 5,562,935, the '935 patent). Claims 2 and 9 stand rejected under 35 U.S.C. §103(a) over Martin '289, Rosato and Travaglini (U.S. Patent No. 5,731,014). Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Martin '289, Rosato, Travaglini and Rozema (U.S. Patent No. 5,846,472). Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Showers (U.S. Patent No. 1,928,213) in view of Skubic (U.S. Patent No. 3,028,168). Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) over Martin '289, Rosato, Travaglini, and further in view of Showers. Claim 12 stands rejected under 35 U.S.C. §103(a) over Martin '289, Rosato, Travaglini, Rozema, and further in view of Showers. Claim 15 stands rejected under 35 U.S.C. §103(a) over Martin '289, Rosato, Travaglini, and further in view of Von Holdt. The Examiner does not indicate whether the Von Holdt reference is U.S.

Patent No. 6,106,265 or 6,171,094. These rejections are respectfully traversed for at least the reasons set forth below.

As noted above, the rejected claims have been cancelled, thus obviating the rejections. Applicant respectfully submits that the new Claims 44-65 are all patentable over the applied references as discussed in greater detail below.

Claim 44 is directed to a stack injection mold apparatus adapted for improved removal of mold components, which includes the hoist bar with slidable engagement to mold modules, which allows for synchronized movement of modules in a manner not shown or contemplated by any prior art cited by the Examiner. Showers and Skubic disclose hoist bars, but neither could be readily adaptable to allow securement simultaneously to the periphery of each module when the machine is in the closed position, each module being slidably engaged to the hoist attachment in the direction of opening and closing the mold, the hoist attachment including a stop at opposite ends thereof, each of which limits the sliding movement of each module beyond the point where the cavity plates and components thereof are separated from the manifold plate, such that when the modules are attached to the hoist attachment in the closed position, each module is movable to the open position from the closed position to allow the separation of the cavity plates of each module from the manifold plates, and once the cavity plates are separated and the core plates are released from securement to the master core plates, the mold modules may be hoisted out of the mold machine, as recited in Claim 44.

Showers discloses a "lifting sling" using an intricate trolley system to move the attachment points to ensure the load is properly balanced. In no way is the apparatus of Showers

adaptable for the purpose of the Applicant's invention, regardless of the presence of stops at the ends thereof. In the claimed invention recited in independent Claim 44, the stops are necessary to allow precise synchronized controlled positioning of the mold modules from the open to the closed position and at the open position. Any stops in Showers could not be adapted for use in the claimed apparatus without significant inventive ingenuity and would render the apparatus of Showers unsatisfactory for its intended purpose. Likewise, the Skubic reference could not be adapted for use in the Applicant's claimed apparatus to allow for simultaneous attachment and simultaneous separating of the mold modules from the master core plates during operation, as claimed.

Martin '289 does not include or even contemplate the feature of the invention as recited in Claim 44. The Examiner states that Martin '289 discloses a mold balancing lift bar, which in combination with a standard chain hoist, is capable of removing a modular mold assembly, including each of the mold assemblies recited in the claims. There is no disclosure or suggestion of the invention recited in Claim 44, including the hoist bar that allows securement simultaneously to the periphery of each module when the machine is in the closed position, each module being slidably engaged to the hoist attachment in the direction of opening and closing the mold, the hoist attachment including a stop at opposite ends thereof, each of which limits the sliding movement of each module beyond the point where the cavity plates and components thereof are separate from the manifold plate, as recited in Claim 44. None of the other art (*e.g.*, Rosato, Martin '935, Travaglini, Rozema, Von Holdt) applied by the Examiner teaches these features. Therefore, for at least these reasons, Claim 44 and its dependent Claims 45-55 are believed to be allowable.

With respect to new Claim 56, the independent Claim is likewise directed to a mold machine apparatus adapted for improved removal of mold components and includes that removal of the modules is guided in the perpendicular direction by a set of roller guides secured to the master core plates and rollingly engaging the core plates, the roller guides following a guide path within a contoured slot defined in the core plate. By requiring the roller guides to follow the guide path within the contoured slot in the core plates, the removal of the modules is achieved in a more controlled manner, and in such a way that reduces the wear and tear of the claimed apparatus. None of the prior art references disclose or even suggest these features. Therefore, for at least this reason, Claim 56 and its dependent Claims 57-65 are also believed to be patentable over the prior art. Withdrawal of the rejections to the claims is respectfully requested.

CONCLUSION

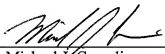
For at least the reasons set forth above, it is respectfully submitted that the above-identified application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are respectfully requested.

Should the Examiner believe that anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

CAESAR, RIVISE, BERNSTEIN,
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July 16, 2009

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Please charge or credit our Account
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Date: July 16, 2009

Signature: 

Name: Michael J. Cornelison

MARKED UP SHEETS

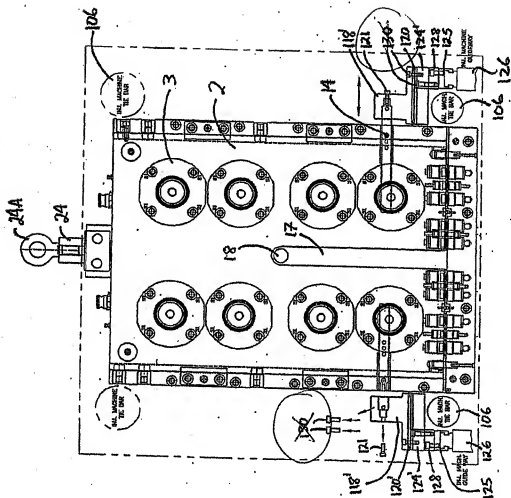


FIG. 10

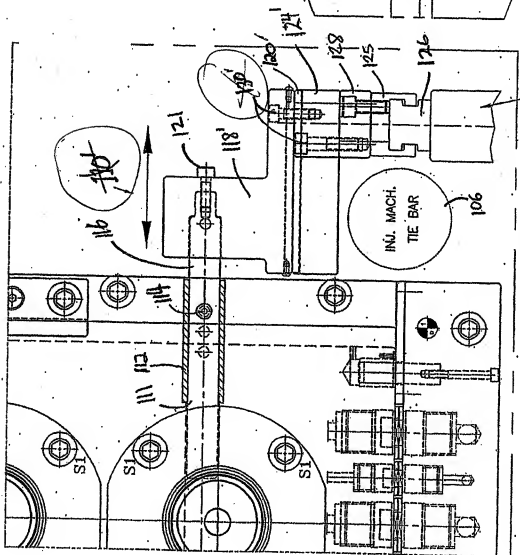


FIG. 10A

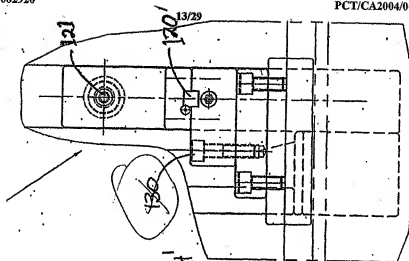


FIG. 10B

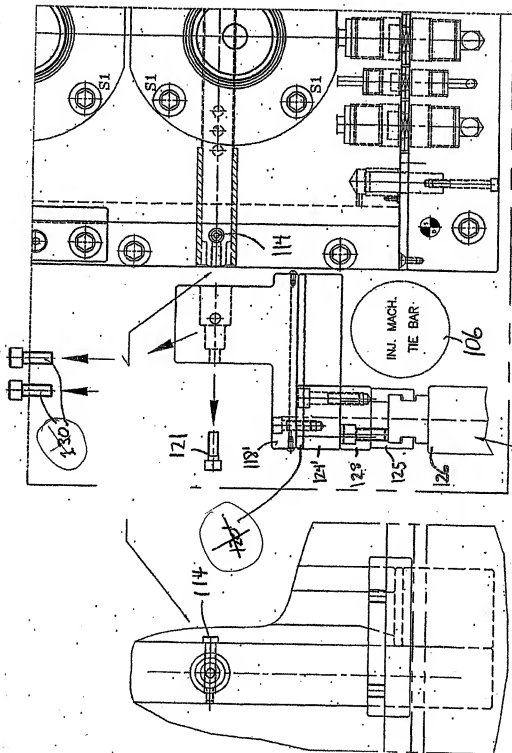


FIG. 10C

FIG. 10D

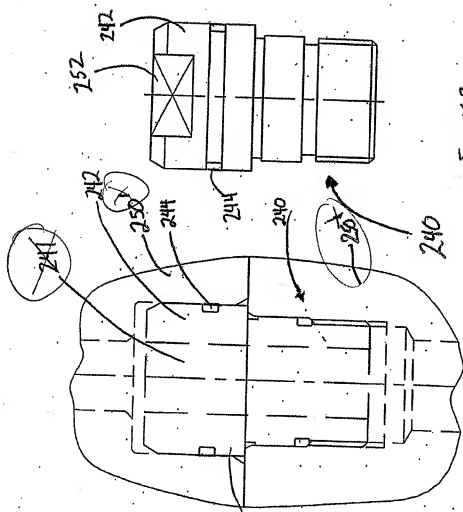


FIG. 16B

FIG 16A